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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/607,822	06/27/2003	Paul Leblans	27500-157	8413

7590 01/11/2006

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EXAMINER

GAGLIARDI, ALBERT J

ART UNIT	PAPER NUMBER
2884	

DATE MAILED: 01/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/607,822	Applicant(s) LEBLANS ET AL.	
	Examiner Albert J. Gagliardi	Art Unit 2884	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 December 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-76 is/are pending in the application.
- 4a) Of the above claim(s) 52-76 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-51 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>10/03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Comment on Submissions

1. The action is responsive to the Amendment and Remarks filed 12 December 2005.

Election/Restrictions

2. Newly submitted claims 52-76 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons:

Newly submitted claims are directed to a combination invention utilizing a specific storage phosphor (classifiable in at least 250/483.1) with a specific x-ray system (classifiable in at least 378/97).

In addition, the newly submitted claims include a reference to a specific storage phosphor that includes critical limitations (i.e. limitations relating to a support layer with a specific thickness) that were not recited in the original claims.

3. Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 52-76 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 1-28 and 31-51 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which

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was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The limitations relating to an “exposure side” is new matter.

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1-28 and 31-51 and are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, the claims as amended include limitations relating to an “exposure side” but it is not clear what element the “exposure side” is related to.

In one portion of the claim, the limitation refers to a phosphor layer on an “exposure side [?] on a support,” but there is no indication of what element has an exposure side. It is unclear what the phosphor layer is deposited on.

The examiner notes that interpreting the “exposure side” to relate to the support seems improper because the expression should be “of a support,” not “on a support.”

The examiner also notes that the term “exposure side” is unclear because is no necessary antecedent basis for an “exposure.” Although the examiner could surmise that the “exposure side” refers to a side of a support exposed to a vacuum deposition process, it is equally possible that the “exposure side” refers to an x-ray “exposure side” of the storage phosphor panel, or perhaps to the readout “exposure side” of the phosphor panel. Such interpretations would be

consistent with the typical application of such storage panels, but there is no antecedent basis in the claim for an x-ray or light readout source.

The remaining claims are rejected on the basis of their dependency.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1, 15-28, 31 and 45-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hell *et al.* (US 2001/0007352 A1 and related to EP 1113458 A1) in view of Homme *et al.* (US 2001/0030291 A1 and related to WO 99/66351) and Okada *et al.* (US 2002/0162965 A1 and related to EP 1231483 A2).

Regarding claim 1, *Hell* discloses a binderless storage phosphor panel or screen comprising a vacuum deposited phosphor layer (par.0020) of CsBr:Eu (par.0031) on a support wherein the support includes a layer of, for example, glass or aluminum material (par.0043).

Regarding an amorphous carbon support, although not specifically disclosed, those skilled in the art appreciate supports such as amorphous carbon as well known in the art (see for example *Homme* at par. 0041). Therefore, absent some degree of criticality, the use of a carbon support would have been an obvious design choice in view of the known functional equivalence thereof. In addition, *Okada* discloses that amorphous carbon has advantages over aluminum and glass in that it has low absorption (and consequently low backscatter), good medicine resistance, and high heat resistance (par. 0009-0014).

Note: regarding the limitations relating to an “exposure side”, the examiner notes that such limitations are so unclear as to render any meaningful examination of the limitations. Regardless of the meaning, the examiner notes that, at best, the limitations related to an “exposure side” relate to a function, and do not suggest any specific structural limitation. See MPEP 2114 noting that:

Apparatus claims must be structurally distinguishable from the prior art. Claims directed to apparatus must be distinguished from the prior art in terms of structure rather than function. *In re Danly*, 263 F.2d 844, 847, 120 USPQ 528, 531 (CCPA 1959). Apparatus claims cover what a device is, not what a device does. *Hewlett-Packard Co. v. Bausch & Lomb Inc.*, 909 F.2d 1464, 1469, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990). See MPEP 2114.

Regarding claims 15-28, *Hell* discloses that the phosphor is a needle shaped (par. 0015) CsBr: Eu phosphor (par. 0031).

Regarding claims 45-51, as best understood, the use of storage phosphor panels and screens are well known for use in a variety of medical imaging applications including mammography.

10. Claims 2-14, 29-30 and 32-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Hell*, *Homme*, and *Okada* as applied above, and further in view of *Willems et al.* (US 5,736,069).

Regarding claim 2-10, *Willems* discloses that substrates for storage phosphor panels may include a variety of auxiliary and additional layers including polymeric layers and reflective aluminum layers and wherein the additional layers may be formed as interlayers and/or backing layers on the substrate (col. 5, line 52 to col. 6, line 9). *Willems* teaches that such layers may be

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used for a variety of purposes including improving bonding, sensitivity, sharpness etc. (col. 5, lines 52-58). Those skilled in the art also appreciate that the provision of additional layers for strength, protection, scratch resistance, anti-static and anti-friction purposes are also well known. Therefore the use of additional layers including a polymeric layer, a reflective aluminum layer and/or a protective layer would have been an obvious design choice in order to improve operation of the storage phosphor panel. Absent some degree of criticality, the particular thickness of any of the layers would be a matter of routine design choice within the skill of a person of ordinary skill in the art depending on the needs of the particular application.

Regarding claims 11-14, *Okada* further discloses the use of protective layers comprising parylene (par.0079). Absent some degree of criticality, the use of parylene C, D or HT is view as a matter of routine design choice.

Regarding claim 29, the method as recited according to claim 29 is suggested by the apparatus as suggested by *Hell, Homme*, and *Okada* as applied above, and are rejected accordingly.

Regarding claim 30, *Willems* further suggests the use of a specularly reflective aluminum layer (col. 6, line 1-2). Absent some degree of criticality, the order at which the aluminum layer is deposited is viewed as a matter of routine design choice depending on the needs of the application.

Regarding claims 32-44, as best understood, the use of storage phosphor panels and screens are well known for use in a variety of medical imaging applications including mammography.

Response to Arguments

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11. Applicant's arguments filed 17 November have been fully considered but they are not persuasive.

12. Regarding applicants arguments that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., specific use for mammography) are not recited in the rejected apparatus claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

13. Regarding applicants arguments regarding the burden of assembling a cassette with transparent materials, it is noted that the features upon which applicant relies (i.e., a cassette) are not recited in the rejected apparatus claim(s).

14. Regarding applicant's argument that *Okada* is specific to a scintillator panel with a base on the exposure side, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). In this case, *Okada* is cited merely for the teaching of the known functional equivalent use of carbon supports, in general, and the advantages thereof over other known materials such as glass or aluminum, not for the specific design or orientation of the panel.

15. Regarding applicant's argument that even though *Homme* teaches the use carbon supports, one would have no basis for selecting carbon from a list of equal options, the examiner notes that an express suggestion to substitute one equivalent component or process for another is

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not necessary to render such a substitution obvious. *In re Fout*, 675 F.2d 297, 213 USPQ 532 (CCPA 1982). See MPEP 2144.06. In addition, such argument is unfounded in view of the express motivations suggested by *Okada*.

16. Regarding applicant's arguments regarding the orientation of the storage panel generally, the examiner notes that those skilled in the art generally appreciate that it is well known in the art to arrange storage phosphor panels so as to have the phosphor layer towards the exposure source (see for example *Homme* – US 2004/0000644 A1 – disclosing a typical orientation of a storage panel at Figs. 5-6 as compared to scintillator and/or image pickup panels as shown at Figs. 1 and 3). The examiner further notes that *Homme* '644 also discloses the known functional equivalent use of amorphous carbon as a base layer (par. 0036).

17. In regards to applicant's request for support that the use of storage phosphor screens in mammography applications is known in the art, the examiner cites *Cresens et al.* – US 2001/0030301 A1 – at pars. 0052-0053).

18. All of applicant's arguments having been addressed, the rejection is maintained.

Conclusion

19. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

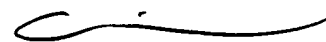
20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Albert J. Gagliardi whose telephone number is (571) 272-2436.

The examiner can normally be reached on Monday thru Friday from 10 AM to 6 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David P. Porta can be reached on (571) 272-2444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

21. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Albert J. Gagliardi
Primary Examiner
Art Unit 2884

AJG